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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,605	04/02/2004	Paul W. Brown	287122-00001-2-1	3129

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ECKERT SEAMANS CHERIN & MELLOTT
600 GRANT STREET
44TH FLOOR
PITTSBURGH, PA 15219

EXAMINER	
MARCANTONI, PAUL D	

ART UNIT	PAPER NUMBER
1755	

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/817,605	BROWN, PAUL W.	
	Examiner	Art Unit	
	Paul Marcantoni	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9/9/05 (response to restriction)*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) *8-12 and 26-32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 13-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-32* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Restriction:

Applicant's election with traverse of Group I, claims 1-7 and 13-25 in the reply filed on 9/9/05 is acknowledged. The traversal is on the ground(s) that the search of claims of Groups I through V are co-extensive. This is not found persuasive because for the proper reasons set forth in the restriction requirement mailed 8/17/05. More so, the search is not co-extensive and requires search in separate and patentably distinct areas of classification as identified in this restriction requirement. The applicants had the option of stating that the groups were "obvious variants" to allow for combination of several of these Groups of invention but they chose not to state their Groups I through V are obvious variants. This refusal to do so also indicates and lends support to the fact that these Groups I through V are separate and patentably distinct and independent inventions.The requirement is still deemed proper and is therefore made FINAL.

35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7 and 13-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tatematsu et al. (US 5,435,846) ,Ratinov et al. (abstract), or Odler (US 5,356,472) alone or in view of Rosenberg et al. '109 or '73.

Tatematsu et al. teach a hydrocalumite additive ($3CaO.Al_2O_3.CaNO_2.nH_2O$ that is even described on page 8 of applicants' own specification which is used for inhibiting

corrosion in concrete. The only difference is that Tatematsu does not use a combination of alumina and iron oxide in their additive. Tatematsu only teaches alumina as part of the ion exchange additive for removing chloride ions. However, limestone or lime, alumina and iron oxide are conventional additives to make concrete from Portland cement clinker. It is the examiner's position that ion exchange can occur between alumina in theTatematsu hydrocalumite additive and iron oxide to form the applicants' claimed combination additive of iron oxide and alumina of formula such as $2CaO.Fe_{2-x}OAl_2O_3$ + a CaO.

Further applicants admit on page 8 of their specification that the same results occur for using iron oxide as a substitute for alumina. There is no unexpected results using alumina, iron oxide, or a combination of both because both form an iron oxide preventive coating on the metal surface to be protected in concrete and also sequester or remove chloride ions. Tatematsu's additive functions exactly the same and performs the same functions.

Ratinov et al. teach a corrosion inhibitor comprising calcium chloride and sodium nitrite used to form a calcium hydronitro-aluminate. For the same reasons as in Tatematsu et al., alumina sources, calcium oxide sources, and iron oxide sources are conventionally used to make Portland cement clinker which is used to make Portland cement and thus concrete by adding aggregate. . It is the examiner's position that ion exchange can occur between alumina in the Ratinov hydronitro-aluminate additive and iron oxide to form the applicants' claimed combination additive of iron oxide and alumina of formula such as $2CaO.Fe_{2-x}OAl_2O_3$ + a CaO.

Odler teaches that Portland cement clinker which is used to make Portland cement is made from mixing calcium oxide, silica, alumina, and iron oxide in the presence of SO_3 (see claim 1). Portland cement concrete thus contains CaO, alumina, and iron oxide and aggregate which is conventionally added to form concrete. It is the examiner's position that though Odler does not teach adding a sequestering additive, this additive would appear to form naturally in Portland cement concrete as a result of mixing of components.

Rosenberg et al. teach it is old in the art to add nitrites to prevent corrosion and it is understood that the addition of nitrites or nitrates assist in the formation of an iron oxide protective coating of the metal article to be protected. Applicants acknowledge this on page 3, lines 5-10 of their specification. Rosenberg et al. thus teach it is old to add nitrites to prevent corrosion of cement and concrete and its usage in the primary references would have been an obvious design choice for one of ordinary skill in the art. It would have been expected that adding nitrate to a Portland cement concrete which already contains iron oxide, alumina, and calcium oxide and the addition of the nitrite would result in the formation of the applicants' claimed additive for their instant invention.

Obviousness Type Double Patenting Rejection:

Claims 1-7 and 13-25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21, 1-33, and 1-12 of U.S. Patent No. 6,610,138 B1, 6,810,634 B1 or 6,755,925 B1 respectively (Brown-all references). Although the conflicting claims are not identical, they are not

patentably distinct from each other because both teach a method of sequestering or removing chloride ions to resist corrosion with the same sequestering additive or agent.

Claims 1-7 and 13-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-42 of copending Application No. 11/078,170 (Brown) and claims 1-8 of copending Application No. 11/039,101 (Brown). Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach a method of sequestering or removing chloride ions to resist corrosion with the same sequestering additive or agent. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-

1373. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul Marcantoni
Primary Examiner
Art Unit 1755